

Grade 5 Math Scoring Guidance

2015-2016 NYC Baseline Performance Tasks

Instructions

- The following pages contain guidance on the scoring of the above-named NYC Performance Task.
- Distribute this guide to all staff scoring the task. *Please note: Fall baseline tasks may be administered and scored by the regular classroom teacher and results may be used to plan for instruction throughout the year.*
- The scoring guidance is intended to be used in conjunction with the rubric, which details indicators of performance levels on all rubric traits.

Overview of the NYC Performance Tasks

The NYC Performance Tasks are comparable baseline and End-of-Year, open-ended assessment pairs that are offered in math, ELA, science, and social studies and promote the instructional shifts of argument and critique, use and analysis of evidence, and exposure to complex texts. The tasks are designed for students to demonstrate their skills in reviewing and analyzing presented evidence and creating an evidence-based argument.

The tasks respond to and support the diversity of curriculum and instruction that exist across NYC schools and act as a resource in these varied settings to support collaborative discourse around curriculum, instruction, and assessment. Tasks are designed to support the Citywide Instructional Expectations by promoting knowledge of students, facilitating alignment to an instructional focus, and developing a culture of collaborative professional learning.

A skills-based, standards-driven rubric accompanies each task and, where feasible, is content agnostic so that it can be used in a variety of ways with other curricular and instructional materials. Rubrics are aligned to the Common Core standards and content-specific New York State standards where appropriate. Topic selection in each grade and subject was influenced by New York City scope and sequence documents.

The following scoring guide structure was adapted from CPET and provides annotated student work samples that show the relationship between the student response and the criteria in the rubric. A matrix of rubric scores and rationales follows each individual student work sample. The guide can also be used to norm scoring practices across teams of educators.

Design Principles for the Math Performance Tasks

Focus Standards

While there may be multiple Common Core standard alignments (partial or full) for each trait in the rubric, the focus standards are used to inform design consistency across grades. In math, the Practices are used as the unifying design principle across grades in lieu of content standards. Grade-level content standard alignment is represented on each rubric.

- MP1: Make sense of problems and persevere in solving them
- MP4: Model with mathematics

See the last page of this guide for a chart of standards alignment per rubric trait across all grade levels.

Design Concept

The design concept for math addresses the following in each grade band:

Grades K-1

- Inventory

Grades 2-12

- Presentation of context
- Multiple mini-task questions addressing that one context

Content and Structure

The topic (e.g., "plants") in each task is used to provide context for students to demonstrate mastery of the focus standards and content standards in math. The design of the task is not for students to demonstrate content knowledge on any particular topic. The content standards chosen represent the major work of the grade, and are structured to measure both discrete and complex skill mastery. Unlike other subject area rubrics, rubric traits in math measure the total allowable score points per question; therefore, not every trait on the rubric has descriptors through four points.

Grade 5 Math Scoring Guidance

Task Overview

NYC Mathematics Performance Tasks are mathematics tasks in which students are presented with a series of connected questions. Each question on the task is intended to address understanding and proficiency of mathematical content, as well as engagement with mathematical practices.

Student Task

Students produce **a numerical** and/or written response. Sample student responses have been provided to you; further information regarding these annotated student works are provided below.

Evaluator Task

You are being asked to use your best, professional judgment to score these student responses using the rubric provided.

General Instructions for Using the Rubric

- (1) Scorers will use the separate rubric provided to assess student performance.
- (2) These traits are being scored for content and practice. Point values may vary from question to question, and there is no eligible point value for areas on the rubric that are blank.
- (3) You are to provide one score for each rubric trait. Please be sure to enter all trait scores on the appropriate Schoolnet Answer Sheet for each student. The final score for the task will be calculated elsewhere.
- (4) All student work in the task booklet should be scored, regardless of whether the student completed or attempted every question.
- (5) A score of “Zero (0) – No attempt” should be considered carefully before being used. See included student work samples for guidance. Scores of “Zero (0) – No attempt” should only be given if:
 - (a) a student did not attempt that question on **any portion** of the task, or
 - (b) if his/her work is **completely copied** directly from the task or texts, or
 - (c) if his/her work is completely unrelated to the question or prompt.

Annotated Student Work

The following pages include annotated student work samples at a variety of performance levels. The samples have been annotated to highlight student responses in relation to the rubric traits. Each sample is followed by a summary page indicating the sample’s score on each rubric trait, in addition to the reasoning for the score. Please review these samples both independently and **with a team** to ensure a common understanding of the rubric traits at all performance levels.

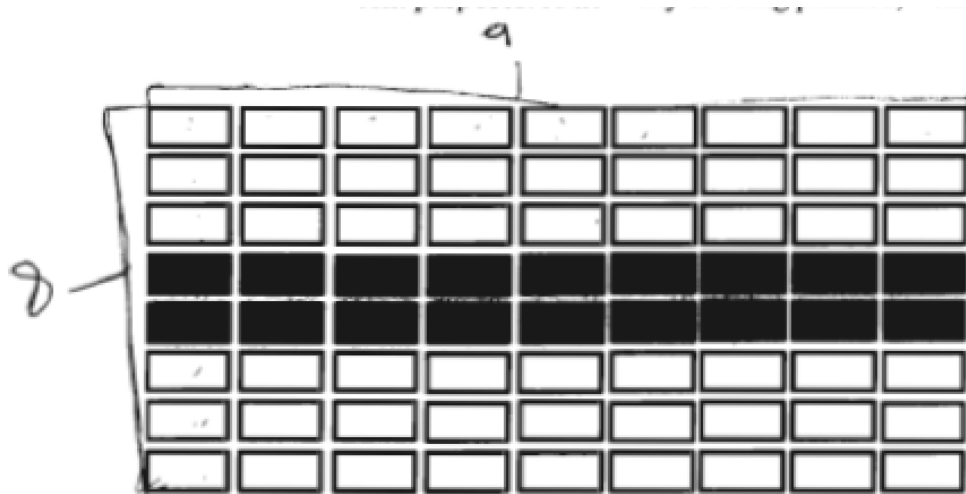
Best Practices for Scoring

- Before scoring a specific task, teacher **teams** should review the task and the rubric and discuss expected performance at each level for each rubric trait.
- As a group, review annotated student work and **discuss evidence for each score**, including discussing non-blank, zero-scored traits. Work to understand the provided scores and rationales for one sample.
- Individually score a few provided student work samples. After working individually, **compare your assigned scores** to those given by others and to the provided scores and rationales. Be sure you understand how each score was assigned, and that your team agrees, before moving to independent work.
- After independently completing a set of student work from your school, review the set with the group to see if you have drifted away from your original scoring, becoming either more severe or more lenient in response to the task. Consistent scoring is important.

City Planning



Cities that are planned tend to be built on a grid, as parts of New York City were. Each city block is usually the same size, but blocks can also be combined for different needs. A city plan gives instructions for how the city should be built and how much of the city will be used for different purposes. A new city is being planned with the following grid of city blocks:

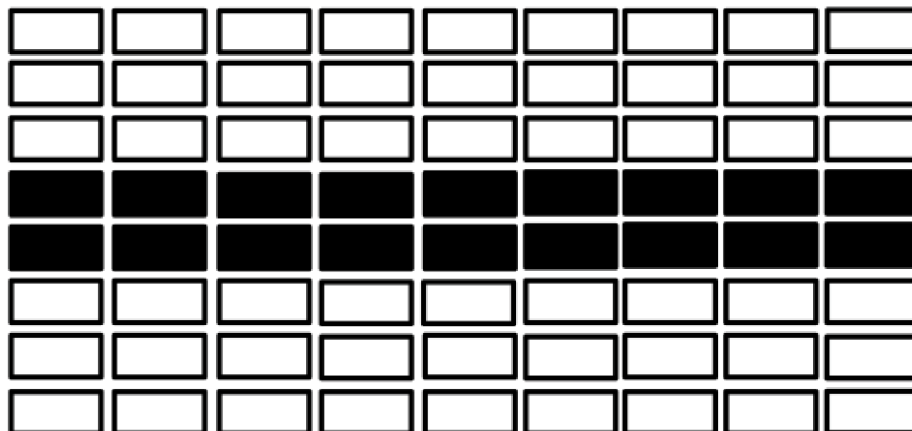


$$\frac{18}{72} \div \frac{9}{9} = \frac{2}{8} \div \frac{2}{2} = \frac{1}{4}$$

- 1** The section in the middle (black) will be used for businesses. What fraction of the city is planned for business? $\frac{1}{4}$

(T1)

Student gives the correct answer.



- 2 The city plan says that $\frac{1}{8}$ of the city will be for parks. So far, $\frac{1}{12}$ of the city is already used for parks. What fraction of the city still needs to become parks? $\frac{1}{24}$ or $\frac{3}{72}$ 72 = entire grid

Show your work.

$$\frac{3}{24} = 3 \times \frac{1}{8} = \frac{3}{24}$$

$$\frac{2}{24} = 2 \times \frac{1}{12} = \frac{2}{24}$$

$$\frac{3}{24} - \frac{2}{24} = \frac{1}{24}$$

T2

The student gives a correct answer and shows a correct process for finding the fraction.

- 3 The city plan says that $\frac{1}{6}$ of the city will be used for other public services besides parks. Combined with the $\frac{1}{8}$ of the city used for parks, what fraction of the city will be used for public services? $\frac{7}{24}$ or $\frac{21}{72}$ 72 = entire grid

Show your work.

$$\frac{1}{6} = \frac{4}{24}$$

$$\frac{1}{8} = \frac{3}{24}$$

$$\frac{4}{24} + \frac{3}{24} = \frac{7}{24}$$

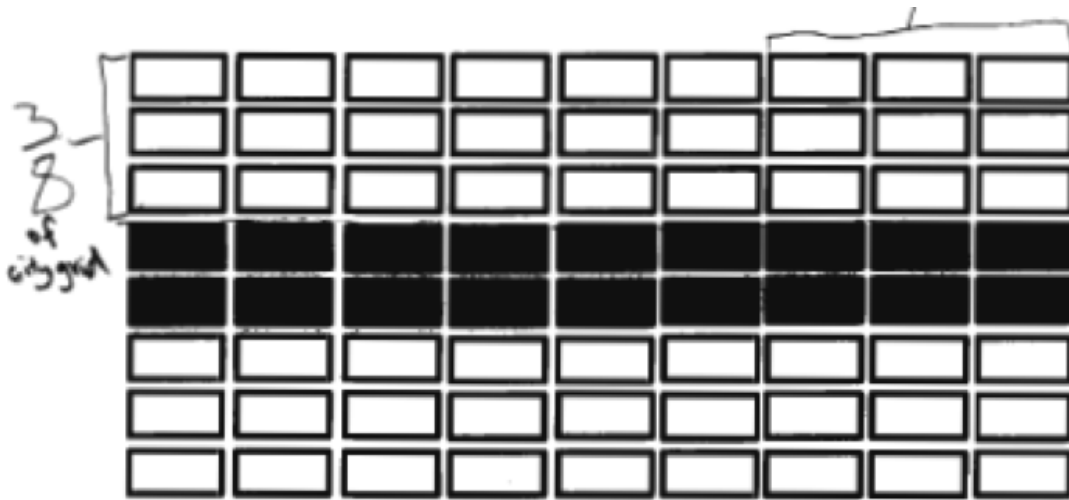
24

x3

72

T3

The student gives a correct answer and shows a correct process for finding the fraction.



- 4 People will need places to live, so $\frac{3}{8}$ of the city will be used for housing. Of this fraction, $\frac{1}{3}$ will be apartments. What fraction of the city will be used for apartments? $\frac{9}{72}$ or $\frac{3}{24}$ or $\frac{1}{8}$ of city grid

Show your work.

$$\frac{3}{8} = \frac{27}{72} \div \frac{3}{1} = \frac{9}{72}$$

T4

The student gives the correct answer and writes a correct equation for finding the fraction.

- 5 $\frac{3}{8}$ of the city is currently being used for housing. $\frac{1}{12}$ of the city is being saved for additional housing. In total, how much of the city will be used for housing? $\frac{11}{24}$

Use estimation to explain your work.

$\frac{3}{8}$ is less than $\frac{1}{2}$ to get to $\frac{1}{2}$ you need to add $\frac{1}{8}$.

$\frac{1}{12}$ is less than $\frac{1}{8}$

When you add $\frac{3}{8}$ and $\frac{1}{12}$, the answer is still less than $\frac{1}{2}$.

T5

The student gives the correct answer, and gives a reasonable explanation using estimation.



- 6 There are 18 business blocks in the middle of the city, and they are owned equally by 5 people. How many blocks does each person own? 3.6 blocks

Show your work.

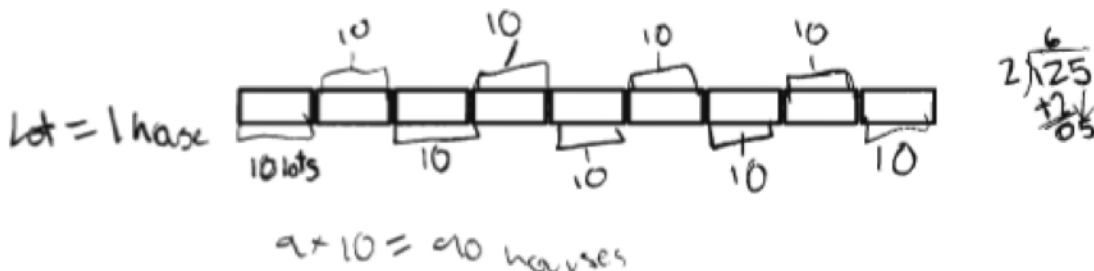
$$\begin{array}{r} 3.6 \\ 5 \overline{) 18} \\ \underline{-15} \\ 30 \\ \underline{-30} \\ 00 \end{array}$$

T6

The student gives a correct answer and shows a correct process for finding the fraction.

- 7 There are 9 city blocks chosen for housing on Elm Street. Each house lot is $\frac{1}{10}$ of a block. How many houses are on Elm Street? 90 houses

Show your work.



T7

The student gives the correct answer and shows that the answer is reasonable.



- 8** Some of the business blocks are divided into $\frac{1}{8}$ -sized lots. The owner of one of the lots is going to divide the lot into 4 small businesses. What fraction of the whole block would one of these businesses occupy? $\frac{1}{32}$

Show your work.

$$\frac{1}{8} \times \frac{1}{4} = \frac{1}{32}$$

T8

The student gives the correct answer and shows correct work.

Sample A - Anchor Paper Commentary

Subject/Course: Math

Task Title: City Planning

Grade Level: 5

Year: 2015-2016

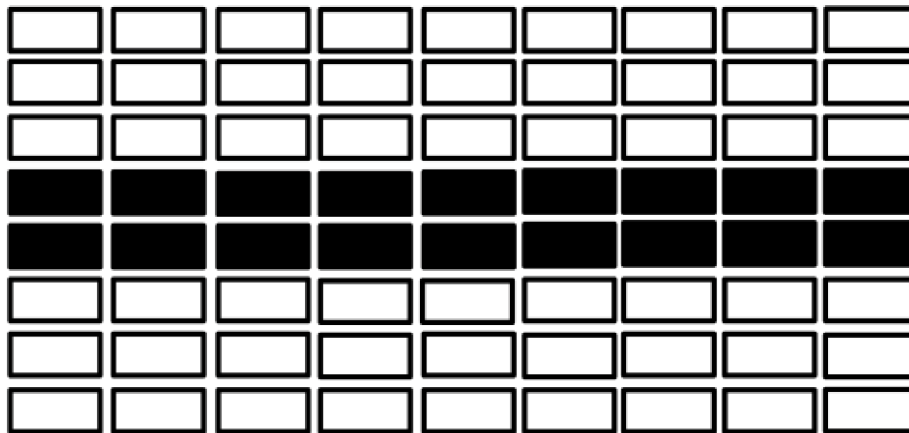
Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student found the correct fraction.	1
T2 Trait 2	2	To arrive at the correct answer, the student found a common denominator and subtracted.	2
T3 Trait 3	2	To arrive at the correct answer, the student found a common denominator and added.	2
T4 Trait 4	2	The student used the grid to find the correct answer, as well as dividing $3/8$ or $(27/72)$ by 3.	2
T5 Trait 5	2	The student gave the correct answer and showed how his/her answer is reasonable using estimation.	2
T6 Trait 6	2	The student divided 18 by 5 to find the correct answer.	2
T7 Trait 7	2	The student arrived at the correct answer by realizing that there were 10 houses in each block.	2
T8 Trait 8	2	The student found the correct answer by taking $1/4$ of $1/8$: $1/8 \times 1/4 = 1/32$.	2

Score = 15/15, Level 4: Exceeding Standards

City Planning



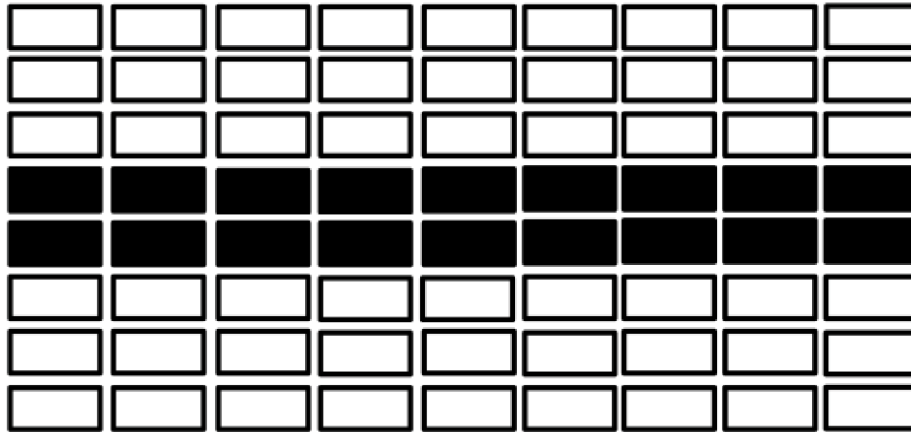
Cities that are planned tend to be built on a grid, as parts of New York City were. Each city block is usually the same size, but blocks can also be combined for different needs. A city plan gives instructions for how the city should be built and how much of the city will be used for different purposes. A new city is being planned with the following grid of city blocks:



- 1 The section in the middle (black) will be used for businesses. What fraction of the city is planned for business?** $\frac{18}{72}$

T1

Student gives the correct answer, a fraction equivalent to $\frac{1}{4}$.



- ② The city plan says that $\frac{1}{8}$ of the city will be for parks. So far, $\frac{1}{12}$ of the city is already used for parks. What fraction of the city still needs to become parks? $\frac{1}{24}$

Show your work.

$$\frac{1}{8} \times \frac{3}{3} = \frac{3}{24} - \frac{2}{24} = \frac{1}{24}$$

(T2)

The student gives a correct answer and shows a correct process for finding the fraction.

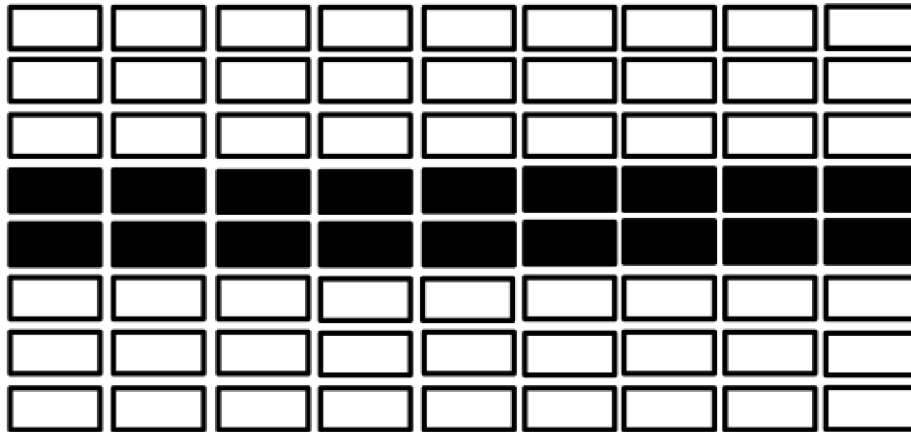
- ③ The city plan says that $\frac{1}{6}$ of the city will be used for other public services besides parks. Combined with the $\frac{1}{8}$ of the city used for parks, what fraction of the city will be used for public services? $\frac{7}{24}$

Show your work.

$$\frac{4}{24} + \frac{3}{24} = \frac{7}{24}$$

(T3)

The student gives a correct answer and shows a correct process for finding the fraction.



- 4 People will need places to live, so $\frac{3}{8}$ of the city will be used for housing. Of this fraction, $\frac{1}{3}$ will be apartments. What fraction of the city will be used for apartments?

$$\frac{1}{24} \quad \frac{9}{24} - \frac{8}{24}$$

Show your work.

$$\frac{9}{24} - \frac{8}{24}$$

T4

Student gives an incorrect answer and the work is incorrect.

- 5 $\frac{3}{8}$ of the city is currently being used for housing. $\frac{1}{12}$ of the city is being saved for additional housing. In total, how much of the city will be used for housing?

$$\frac{11}{24}$$

Use estimation to explain your work.

$$\frac{11}{24} \quad \frac{3}{8} = \frac{9}{24} \quad \frac{11}{12} = \frac{2}{24} \quad \frac{9}{24} + \frac{2}{24} = \frac{11}{24}$$

T5

The student gives the correct answer, but does not use estimation to explain why the answer is reasonable.



- 6 There are 18 business blocks in the middle of the city, and they are owned equally by 5 people.

How many blocks does each person own? 3.6

Show your work.

$$\begin{array}{r} 3.6 \\ 5 \overline{) 18} \\ \underline{-15} \\ 30 \end{array}$$

T6

The student gives a correct answer and shows a correct process for finding the fraction.

- 7 There are 9 city blocks chosen for housing on Elm Street. Each house lot is $\frac{1}{10}$ of a block. How many houses are on Elm Street? 90 houses

Show your work.

9 blocks
1 block = 10 houses

10 houses
x 9 blocks
90 houses

T7

The student gives the correct answer and shows that their answer is reasonable.





- 8 Some of the business blocks are divided into $\frac{1}{8}$ -sized lots. The owner of one of the lots is going to divide the lot into 4 small businesses. What fraction of the whole block would one of these businesses occupy? _____

Show your work.

each one is smaller than the whole $\frac{1}{16}$

T8

Student does not answer the question, and the work is unclear and incomplete.

Sample B - Anchor Paper Commentary

Subject/Course: Math

Task Title: City Planning

Grade Level: 5

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student found the correct fraction equivalent to $\frac{1}{4}$.	1
T2 Trait 2	2	To arrive at the correct answer, the student found a common denominator and subtracted.	2
T3 Trait 3	2	To arrive at the correct answer, the student has found a common denominator and added.	2
T4 Trait 4	0	Student gives an incorrect answer and the work is incorrect.	2
T5 Trait 5	1	The student found the answer. However, the student doesn't use estimation in their work.	2
T6 Trait 6	2	The student found the correct answer and divided 18 by 5 to find the correct answer.	2
T7 Trait 7	2	The student arrived at the correct answer by realizing that there were 10 houses in each block and showed the correct process to find the answer.	2
T8 Trait 8	0	The student left the answer line blank and the work is incomplete.	2

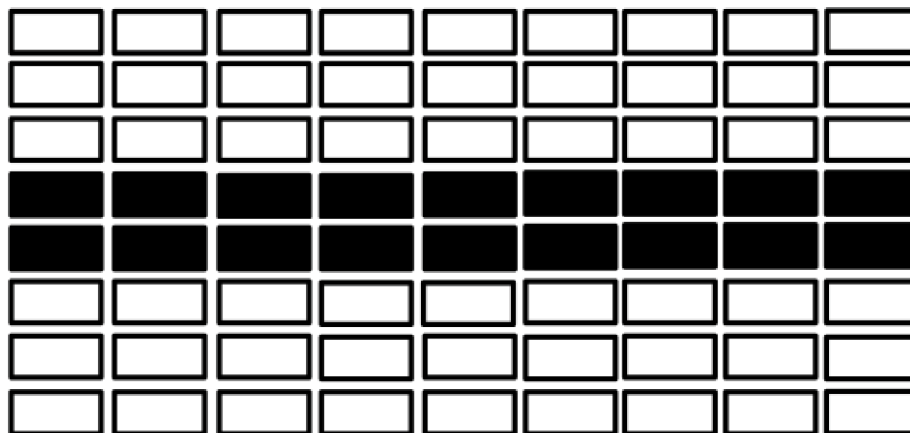
Score = 10/15, Level 3: Meeting Standards



City Planning



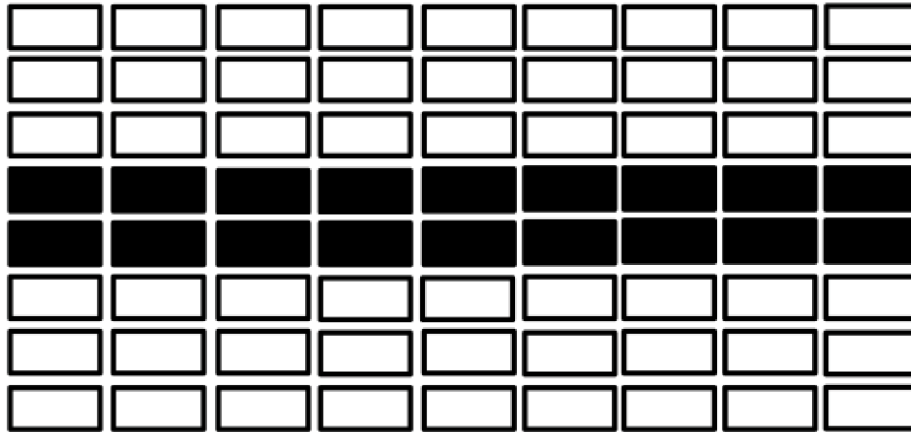
Cities that are planned tend to be built on a grid, as parts of New York City were. Each city block is usually the same size, but blocks can also be combined for different needs. A city plan gives instructions for how the city should be built and how much of the city will be used for different purposes. A new city is being planned with the following grid of city blocks:



- 1 The section in the middle (black) will be used for businesses. What fraction of the city is planned for business?** 18/72

T1

Student gives the correct answer, a fraction equivalent to $\frac{1}{4}$.



- 2 The city plan says that $\frac{1}{8}$ of the city will be for parks. So far, $\frac{1}{12}$ of the city is already used for parks. What fraction of the city still needs to become parks?

Show your work.

$$\frac{3}{24} - \frac{2}{24} = \frac{1}{24}$$

T2

The student gives a correct answer and shows a correct process for finding the fraction.

$$\frac{1}{8} \times \frac{3}{3} = \frac{3}{24} \quad \frac{1}{12} \times \frac{2}{2} = \frac{2}{24}$$

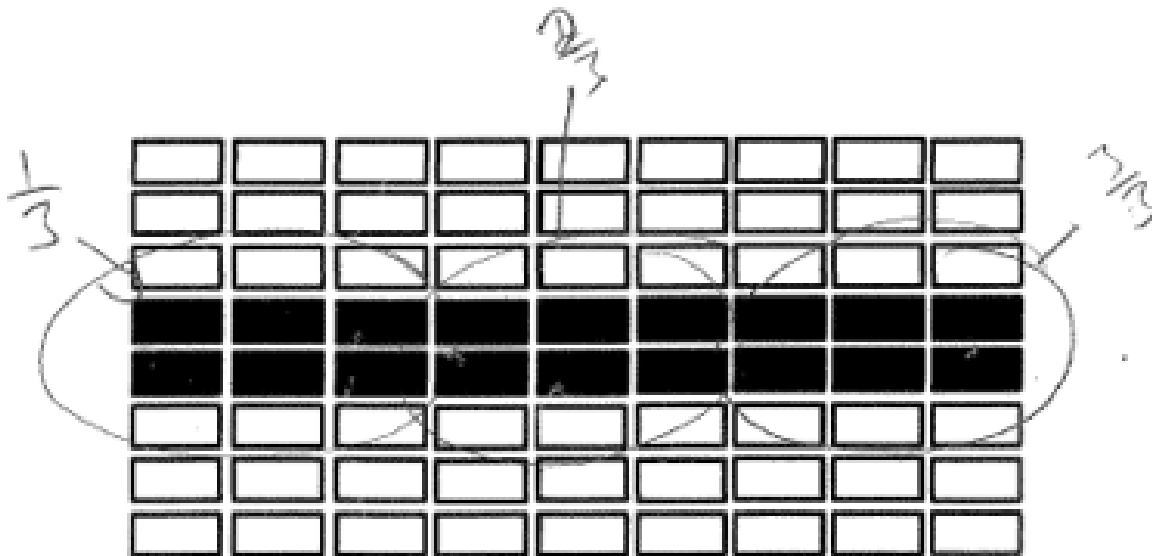
- 3 The city plan says that $\frac{1}{6}$ of the city will be used for other public services besides parks. Combined with the $\frac{1}{8}$ of the city used for parks, what fraction of the city will be used for public services?

Show your work.

$$\frac{21}{24} \quad 24 - \frac{3}{24} = \frac{21}{24}$$

T3

An incorrect answer is shown, and the work is unclear.



- 4 People will need places to live, so $\frac{3}{8}$ of the city will be used for housing. Of this fraction, $\frac{1}{3}$ will be apartments. What fraction of the city will be used for apartments? $\frac{6}{72}$

Show your work.

T4

An incorrect answer is shown, and no work is shown.

- 5 $\frac{3}{8}$ of the city is currently being used for housing. $\frac{1}{12}$ of the city is being saved for additional housing. In total, how much of the city will be used for housing? $\frac{11}{24}$

Use estimation to explain your work.

$$\frac{9}{24} + \frac{2}{24} = \frac{11}{24}$$

T5

The student gives the correct answer, but does not use estimation to explain why the answer is reasonable.



- 6 There are 18 business blocks in the middle of the city, and they are owned equally by 5 people.
How many blocks does each person own? 3.6

Show your work.

$$\begin{array}{r} 3.6 \\ 5 \overline{) 18} \\ \underline{-15} \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

T6

The student gives a correct answer and shows a correct process for finding the fraction.

- 7 There are 9 city blocks chosen for housing on Elm Street. Each house lot is $\frac{1}{10}$ of a block. How many houses are on Elm Street? 90

Show your work.



T7

The student gives the correct answer and shows correct work.



- 8 Some of the business blocks are divided into $\frac{1}{8}$ -sized lots. The owner of one of the lots is going to divide the lot into 4 small businesses. What fraction of the whole block would one of these businesses occupy? $\frac{1}{2}$

Show your work.

$$\frac{1}{8} \times \frac{2}{2} = \frac{2}{16}$$

$$\frac{4}{1} \times \frac{16}{16} = \frac{64}{16}$$

T8

An incorrect answer is shown, and the work is unclear.

Sample C - Anchor Paper Commentary

Subject/Course: Math

Task Title: City Planning

Grade Level: 5

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student found the correct fraction.	1
T2 Trait 2	2	To arrive at the correct answer, the student found a common denominator and subtracted.	2
T3 Trait 3	0	The student has not found the correct answer, and the work is insufficient to tell what the misconception might be.	2
T4 Trait 4	0	The student did not find the correct answer and no work is shown.	2
T5 Trait 5	1	The student gives the correct answer, but does not use estimation to explain why the answer is reasonable.	2
T6 Trait 6	2	The student divided 18 by 5 to find the correct answer.	2
T7 Trait 7	2	The student arrived at the correct answer by realizing that there were 10 houses in each block.	2
T8 Trait 8	0	The student did not find the correct answer, and the work shows misconceptions.	2

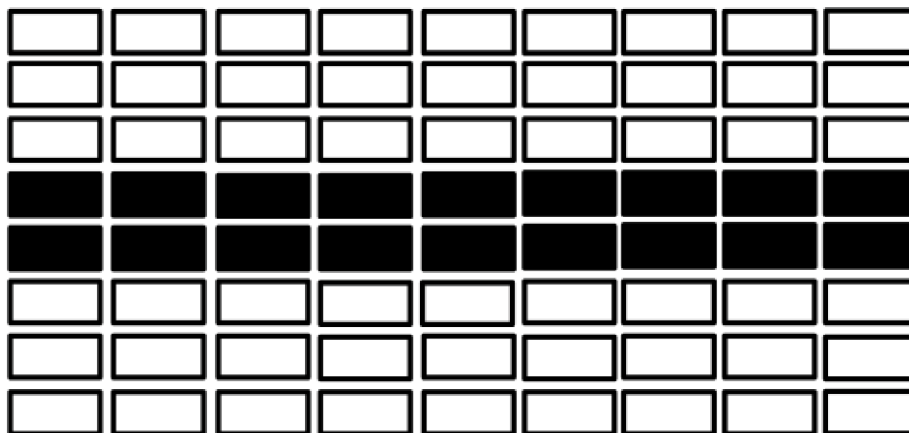
Score = 8/15, Level 2: Approaching Standards



City Planning



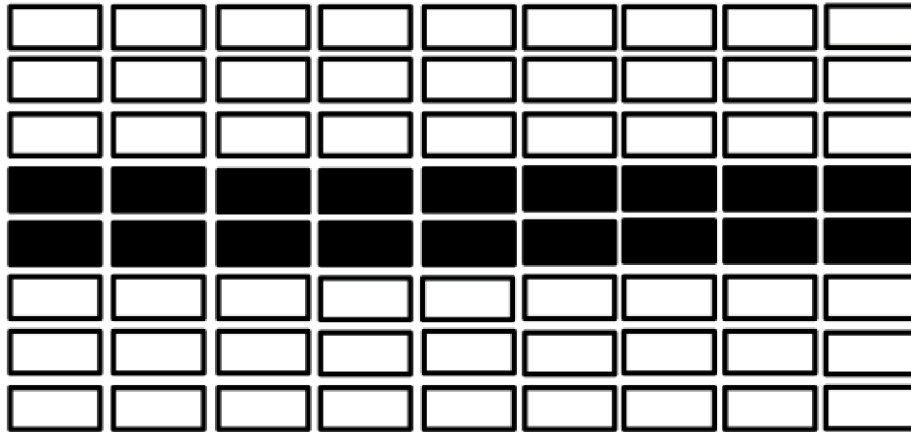
Cities that are planned tend to be built on a grid, as parts of New York City were. Each city block is usually the same size, but blocks can also be combined for different needs. A city plan gives instructions for how the city should be built and how much of the city will be used for different purposes. A new city is being planned with the following grid of city blocks:



- 1 The section in the middle (black) will be used for businesses. What fraction of the city is planned for business? $\frac{1}{4}$

T1

The student gives the correct answer.



- 2 The city plan says that $\frac{1}{8}$ of the city will be for parks. So far, $\frac{1}{12}$ of the city is already used for parks. What fraction of the city still needs to become parks? $\frac{1}{24}$

Show your work.

$$\frac{3 \times 1}{3 \times 8} \times \frac{1 \times 2}{12 \times 2} = \frac{1}{96}$$

$$\frac{12}{8} = \frac{3}{2}$$

$$\frac{1}{8}$$

$$\frac{3}{24}$$

$$\frac{1}{12}$$

$$\frac{2}{24}$$

$$\frac{3}{24}$$

$$\frac{2}{24}$$

T2

The student gives a correct answer and shows a correct process for finding the fraction. The student initially used multiplication, but then used subtraction, finding common denominators.

- 3 The city plan says that $\frac{1}{6}$ of the city will be used for other public services besides parks. Combined with the $\frac{1}{8}$ of the city used for parks, what fraction of the city will be used for public services? $\frac{7}{24}$

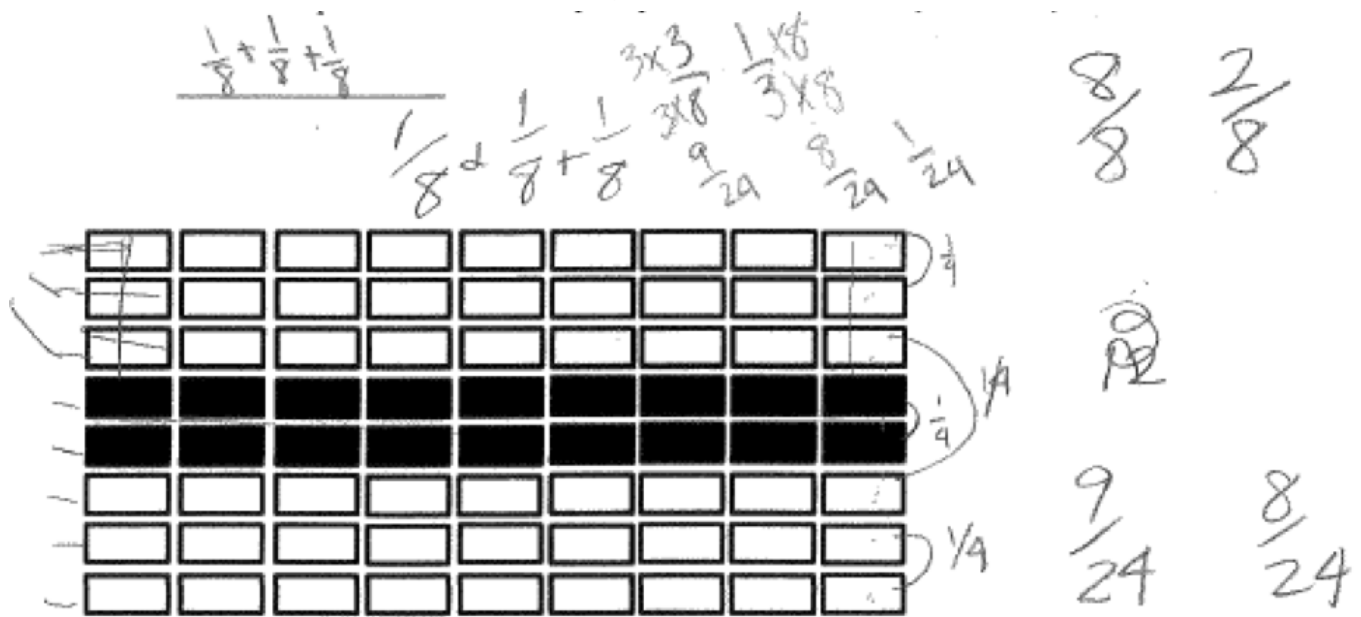
Show your work.

$$\frac{4 \times 1}{4 \times 6} \quad \frac{1 \times 3}{8 \times 3}$$

$$\frac{4}{24} \text{ ps } \frac{3}{24} \text{ Park}$$

T3

The student gives a correct answer and shows a correct process for finding the fraction.



- 4 People will need places to live, so $\frac{3}{8}$ of the city will be used for housing. Of this fraction, $\frac{1}{3}$ will be apartments. What fraction of the city will be used for apartments? $\frac{1}{8}$

Show your work.

$$\frac{1}{8} + \frac{1}{8} + \frac{1}{8}$$

T4

The student gives the correct answer and uses the correct process for finding the fraction.

- 5 $\frac{3}{8}$ of the city is currently being used for housing. $\frac{1}{12}$ of the city is being saved for additional housing. In total, how much of the city will be used for housing? $\frac{7}{24}$

Use estimation to explain your work.

$$\frac{3 \times 3}{3 \times 8} \quad \frac{1}{12} \quad \frac{9}{24} - \frac{2}{24}$$

T5

Student gives an incorrect answer and the work does not show the use of estimation.



- 6 There are 18 business blocks in the middle of the city, and they are owned equally by 5 people.

How many blocks does each person own? $4\frac{1}{2}$

Show your work.

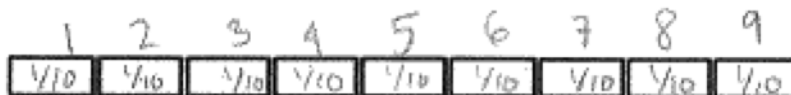
T6

An incorrect answer is shown, and the work is unclear.



- 7 There are 9 city blocks chosen for housing on Elm Street. Each house lot is $\frac{1}{10}$ of a block. How many houses are on Elm Street? $\frac{9}{10}$

Show your work.



T7

Student gives an incorrect answer, and the work shows misconceptions.



- 8 Some of the business blocks are divided into $\frac{1}{8}$ -sized lots. The owner of one of the lots is going to divide the lot into 4 small businesses. What fraction of the whole block would one of these businesses occupy? $\frac{1}{4}$

Show your work.



T8

An incorrect answer is given, and the work is incomplete and unclear.

Sample D - Anchor Paper Commentary

Subject/Course: Math

Task Title: City Planning

Grade Level: 5

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	1	The student gives the correct fraction.	1
T2 Trait 2	2	To arrive at the correct answer, the student found a common denominator and subtracted.	2
T3 Trait 3	2	To arrive at the correct answer, the student found a common denominator and added.	2
T4 Trait 4	2	The student arrived at the correct answer and used expressions (showing $\frac{3}{8}$ as $\frac{1}{8} + \frac{1}{8} + \frac{1}{8}$) to illustrate the solution.	2
T5 Trait 5	0	An incorrect answer is given. The student tried to find the exact answer, but used the wrong operation and did not estimate.	2
T6 Trait 6	0	An incorrect answer is given. The student attempted to divide 18 by 5 using a drawing, but did not arrive at the correct answer.	2
T7 Trait 7	0	The student gives an incorrect answer, and the work shows misconceptions.	2
T8 Trait 8	0	The student gives an incorrect answer, and the work is incomplete and unclear.	2

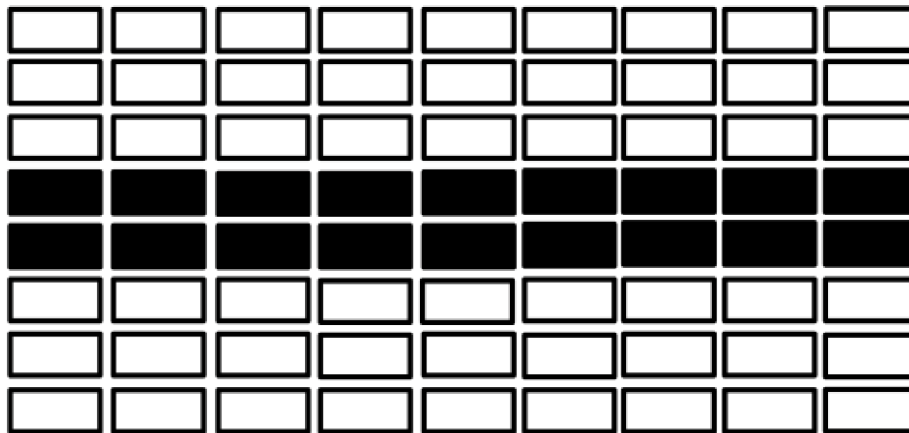
Score = 7/15, Level 2: Approaching Standards



City Planning



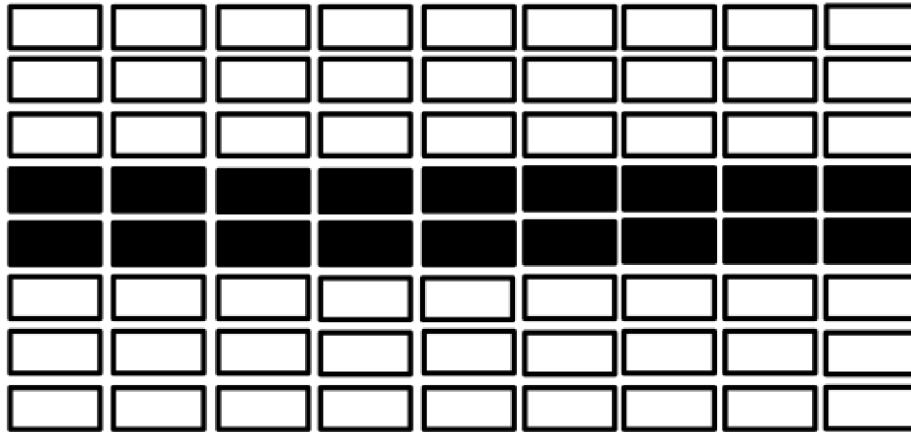
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- 1 The section in the middle (black) will be used for businesses. What fraction of the city is planned for business? $\frac{1}{3}$

T1

An incorrect answer is given.



- 2 The city plan says that $\frac{1}{8}$ of the city will be for parks. So far, $\frac{1}{12}$ of the city is already used for parks. What fraction of the city still needs to become parks? $\frac{1}{36}$

Show your work.

$$\frac{1}{8} = \frac{9}{72} \quad \frac{1}{12} = \frac{7}{72}$$

$$\begin{array}{r} 36 \\ 2 \overline{) 72} \\ \underline{-68} \\ 12 \end{array}$$

T2

An incorrect answer is shown, and the work is incorrect.

$$\frac{9}{72} - \frac{7}{72} = \frac{2}{72} = \frac{1}{36}$$

- 3 The city plan says that $\frac{1}{6}$ of the city will be used for other public services besides parks. Combined with the $\frac{1}{8}$ of the city used for parks, what fraction of the city will be used for public services? $\frac{12}{72}$

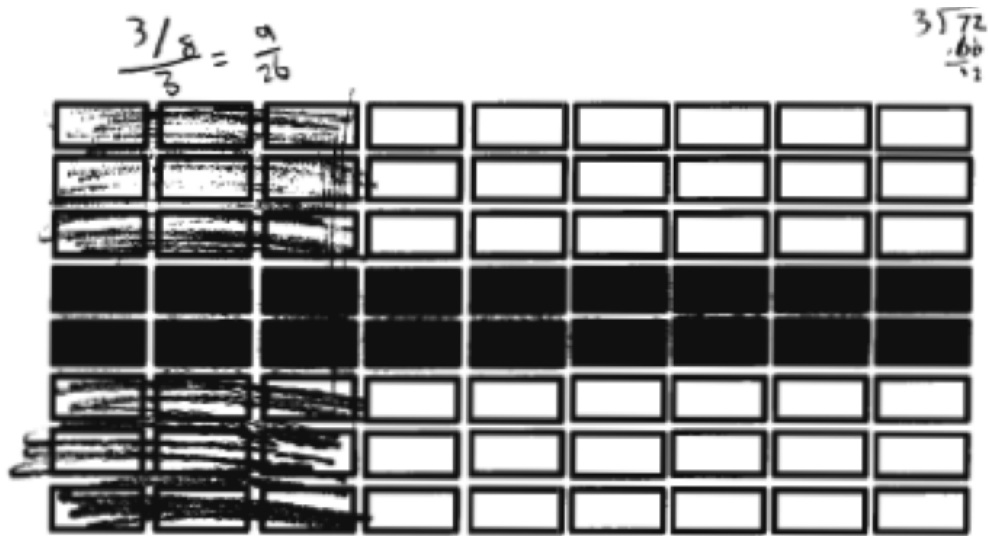
Show your work.

$$\frac{1}{6} \quad \frac{12}{72} \text{ Public services}$$

$$\begin{array}{r} 12 \\ 6 \overline{) 72} \\ \underline{-62} \\ 12 \end{array}$$

T3

An incorrect answer is shown, and the work is incorrect.



- 4 People will need places to live, so $\frac{3}{8}$ of the city will be used for housing. Of this fraction, $\frac{1}{3}$ will be apartments. What fraction of the city will be used for apartments? $\frac{9}{26}$

Show your work.

$$\frac{3}{8} \times \frac{9}{9} = \frac{27}{72} \div 3 = \frac{9}{26}$$

$$\begin{array}{r} 26 \\ 3 \overline{) 72} \\ \underline{-62} \\ 12 \end{array}$$

T4

An incorrect answer is shown, and the work is incorrect.

$$\frac{3/8}{3} = \frac{9}{26}$$

- 5 $\frac{3}{8}$ of the city is currently being used for housing. $\frac{1}{12}$ of the city is being saved for additional housing. In total, how much of the city will be used for housing? $\frac{34}{24}$

Use estimation to explain your work.

$$\frac{3}{8} \times 9 = \frac{27}{72} + \frac{7}{72} = \frac{34}{72}$$

$$\frac{1}{12} = \frac{7}{72}$$

T5

The student found an incorrect answer and did not use estimation.



- 6 There are 18 business blocks in the middle of the city, and they are owned equally by 5 people.

How many blocks does each person own? _____

Show your work.

T6

Student does not answer question.

- 7 There are 9 city blocks chosen for housing on Elm Street. Each house lot is $\frac{1}{10}$ of a block. How many houses are on Elm Street? 90

Show your work.

T7

The student gives the correct answer and shows that the answer is reasonable.

10 houses = 1 city block





- 8 Some of the business blocks are divided into $\frac{1}{8}$ -sized lots. The owner of one of the lots is going to divide the lot into 4 small businesses. What fraction of the whole block would one of these businesses occupy? $\frac{3}{4}$

Show your work.

$$\frac{1}{8} \div 4$$

$$\frac{1}{8} = \frac{9}{72}$$

$$\frac{9}{72} \cdot \frac{1}{4} = \frac{9}{288}$$

T8

An incorrect answer is shown, although the student uses a correct equation.

Sample E - Anchor Paper Commentary

Subject/Course: Math

Task Title: City Planning

Grade Level: 5

Year: 2015-2016

Rubric Traits	Anchor Score	Commentary/Rationale	Maximum Score
T1 Trait 1	0	The student did not find a correct fraction.	1
T2 Trait 2	0	The student did not arrive at the correct answer. He/she used the correct operation and a common denominator, but converted one fraction incorrectly.	2
T3 Trait 3	0	An incorrect answer is shown, and the work is incomplete and shows misconceptions.	2
T4 Trait 4	0	An incorrect answer is shown, and the work is incomplete and shows misconceptions.	2
T5 Trait 5	0	The student found an incorrect answer and did not use estimation.	2
T6 Trait 6	0	Student does not answer question.	2
T7 Trait 7	2	The student arrived at the correct answer by realizing that there were 10 houses in each block.	2
T8 Trait 8	1	The student did not find the correct answer but did use a correct equation.	2

Score = 3/15, Level 1: Attempting Standards

Trait to Standard Alignment Chart

		Common Core Standards											
Trait	Question	K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Algebra 1	Algebra 2	Geometry
1	1	K.CC.1	1.NBT.1	2.NBT.4	3.MD.7b	4.OA.2	3.NF.1	6.RP.1	7.EE.3	8.F.4	F.IF.4	G.SRT.8	G.CO.9
2	2	K.CC.2	2.NBT.2	2.NBT.4	3.OA.6	4.MD.3	5.NF.1	6.RP.3a	7.EE.1	8.F.4	F.IF.6	G.SRT.8	G.CO.10
3	3	1.NBT.1	1.NBT.5	2.NBT.7	4.NBT.6	4.OA.4	5.NF.1	6.EE.9	7.RP.3	8.F.4	F.BF.1a,b and F.BF.2	G.SRT.8	G.SRT.4
4	4	K.CC.1	2.NBT.8	2.NBT.4	3MD.7b	4.NBT.5	5.NF.4a	6.RP.3c	7.EE.2	8.EE.8b	4.OA.5	G.SRT.8	G.SRT.5
5	5	1.NBT.5	1.NBT.1	2.NBT.1	3.NBT.3	4.OA.5	5.NF.2	6.RP.3b	7.EE.2	8.EE.8a	F.BF.1a,b and F.BF.2	F.BF.1a	G.SRT.5
6	6	K.CC.3	2.NBT.3	2.NBT.1	3.OA.3	4.MD.2	5.NF.3	6.RP.2	7.RP.3	8.F.2	F.IF.5	F.TF.8	G.CO.5
7	7	1.NBT.1	1.NBT.3		3.OA.8	4.OA.3	5.NF.7b	6.RP.3	7.EE.4b	8.F.4	A.REI.7		G.SRT.5
8	8	K.CC.4	2.NBT.4				5.NF.7a				A.SSE.3a		
9	9	K.CC.6	1.OA.7										
10	10	1.NBT.3	2.OA.2										
11	11	K.OA.1	1.OA.1										
12	12	1.OA.7	2.OA.1										
13	13	K.OA.2											
14	14	1.OA.1											